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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/905,308	07/13/2001	Robert S. Blackmore	POU920000146US1	6080

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EXAMINER	
JEAN GILLES, JUDE	

ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 10/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/905,308	BLACKMORE ET AL.	
	Examiner	Art Unit	
	Jude J. Jean-Gilles	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 July 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Action is in regards to the Reply received on 16 November, 2004.

Response to Amendment

1. This action is responsive to the application filed on 02/07/2005. Claims 1, 4, and 7 were amended. There are no newly added. Claims 1-7 are pending. Claims 1-7 represent a method and apparatus for a "Recovery Support for Reliable Messaging."

Response to Arguments

2. Applicant's arguments with respect to claims 1, 4 and 7 have been carefully considered, and are persuasive. New prior art of reference is used for the Rejection Below.

Information Disclosure Statement

3. The references listed on the Information Disclosure Statement submitted on 07/13/2001 have been considered by the examiner (see attached PTO-1449A).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaman et al (U.S. 6,011,780) in view of Miyagi et al (U.S. 5,461,607), further in view of McAllister et al (McAllister) U.S. Patent 6,697,329 B1.

Regarding claim 1: Vaman et al disclose the invention substantially as claimed. Vaman et al teach a method for providing reliable communication in a system of directly connected [an interconnected network of] data processing nodes (*figs. 1 and 2; column 7, lines 12-15*), said method comprising:

detecting a failure of nodes or communication links in a system using a heartbeat mechanism to indicate to said nodes that at least one of said nodes or said communication links are functioning or have failed (*column 11, lines 11-28*);

establishing an instance identifier associated with said failure (*column 12, lines 9-17*);

Vaman et al further teach sending notification of said failure (*column 7, lines 39-42*), including said instance identifier, to other nodes having existing communication links with said at least one failed node (*column 12, lines 9-25*); However, Vaman et al are silent on how to terminate, at said notified nodes, pending communication links that involve said at least one failed node, said termination being carried out in response to said notification.

In the same field of endeavor, Miyagi et al disclose "*a case where the transmission line failure is in its own apparatus and the failure transmission line accommodates the Virtual Path which is terminated by the ATM-Switch*" [*see Miyagi, fig. 9c, items 310-312; column 2, lines 36-46*].

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Miyagi et al's teachings of detecting and terminating a transmission line failure with the teachings of Vaman et al, for the purpose of improving the ability of a network "*to monitor node movement and take management actions to prevent disruption*" as stated by Vaman in lines 38-43 of column 8.

Furthermore, in the same field of endeavor, McAllister discloses the alledged deficiencies of the Varman and Miyagi. [see fig. 2A; column 6, lines 8-65 on the interconnected networ4k data processing nodes. Also see column 2, lines 25-60 about the notification of node failure; and column 6, lines 8-65 about the instance identifier. By this rationale, **claim 1** is rejected.

Regarding **claim 2:** The combination Vaman-Miyagi- McAllister teaches the method of claim 1 further including the step of detecting that said at least one failed node is no longer in a failed state and resuming communications with that node using an incremented value for said instance identifier. [*see Vaman, column 11, lines 47-53, column 16, lines 15-16, 38, and 47*]. By this rationale **claim 2** is rejected.

Regarding **claim 3:** The combination Vaman-Miyagi- McAllister teaches the method of claim 2 further including the step of resuming communications with said other nodes using said incremented instance identifier [*see Vaman, column 11, lines 47-53, column 16, lines 15-16, 38, and 47*]. By this rationale **claim 3** is rejected.

Regarding claim 4: The combination Vaman-Miyagi- McAllister teaches the invention substantially as claimed. Vaman et al teach a data processing system comprising:

a plurality of interconnected data processing nodes (Varman; *column 7, lines 12-15; figs. 1 and 2*);

heartbeat signal generators within each said node for providing a signal over a separate path to others of said nodes indicative of node failure status (Varman; *column 11, lines 11-28*);

heartbeat signal detectors within said nodes for indicating that a certain node has failed (Varman; *column 12, lines 9-17*);

Vaman et al further teach a first program within said nodes for establishing an instance identifier associated with each node failure and for transmitting notification of said failure and said instance identifier to nonfailed nodes (Varman; *column 9, lines 24-63; column 16, appendix A*);

a second program within said nodes for terminating, at said notified nodes, pending communication links that involve said at least one failed node, said termination being carried out in response to said notification (Varman; column 12, lines 15-57).

Regarding **claim 5:** The combination Vaman-Miyagi- McAllister teaches the data processing system of claim 4 in which said heartbeat signal detectors also provide an indication that a failed node has returned to functioning status. [*see Vaman, column 9, lines 37-54*]. By this rationale **claim 5** is rejected.

Regarding **claim 6:** The combination Vaman-Miyagi- McAllister teaches the data processing system of claim 5 further comprising a third program within said nodes which resumes communication with nodes that have returned to functioning status, said communication including transmission of a new instance identifier. [*see Vaman, column 11, lines 21-28*]. By this rationale **claim 6** is rejected.

Regarding claim 7: The combination Vaman-Miyagi- McAllister teaches a computer program product comprising a computer readable medium (see Varman; *fig. 1, intelligent controller, ATM switch*) on which is stored program means (*see Varman; column 8, lines 13-18*) for:

detecting a failure of nodes or communication links in a system a system of directly connected data processing nodes, using a heartbeat signal provided over a separate path [mechanism] to indicate to said nodes that at least one of said nodes or said communication links are functioning or have failed (*see Varman; column 11, lines 11-28*);

establishing an instance identifier associated with said failure (*see Varman; column 12, lines 9-17*);

Vaman et al further teach sending notification of said failure, including said instance identifier, to other nodes having existing communication links with said at least one failed node (*see Varman; column 12, lines 9-25*); [see fig. 2A; column 6, lines 8-65];

Terminating, at said notified nodes, pending communication links that involve said at least one failed node, said termination being carried out in response to said notification [see McAllister; see fig. 2A; column 6, lines 8-65].

Response to Arguments

6. Applicant's Request for Reconsideration filed on 02/07/2005 has been carefully considered but is persuasive. However, it is the examiner's position that the new art of reference McAllister teaches the deficiencies of the prior office action.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE NON-FINAL**. Any inquiry concerning this communication or earlier communications from examiner should be directed to Jude Jean-Gilles whose telephone number is (571) 272-3914. The examiner can normally be reached on Monday-Thursday and every other Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley, can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-9000.

Jude Jean-Gilles

Patent Examiner

Art Unit 2143

JJG

October 02, 2005

DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100